Amendments to the Specification

Please amend the specification as follows:

Please amend the **paragraph at the bottom of page 28** as follows:

Thus, as can be seen from the above description, the present invention allows for the fabrication of hundreds or thousands of devices in parallel. In use, an ~~tan~~ entire wafer containing on the order of a thousand devices is communicated with ~~be~~ a common programming source, which accesses all or groups of the chips on the wafer. The wafer is exposed chemically by dipping or, preferably, by spinning, both of which are similar to well-known processes in the IC processing industry. The wafer is placed on a rotatable platen in a powered state, which is unlike the approach used in IC processing. Connection to the platen is by means of a set of slip rings. Electronic states are set up and chemicals such as reagents for carrying out a chemical synthesis are applied to the spinning disc with centrifugal force used to spread and void the chemicals. Following the chemical syntheses, the wafer may be diced into the appropriate number of chips desired.

Please amend the **paragraph at the top of page 29** as follows:

The above fabrication may include provisions for reducing electrical noise often present when data is fed through slip rings. In one approach this is accomplished by redundant brushes. Alternately, power, e.g., from a battery, and non-volatile data storage may be included in the rotating assembly such that the data may be transferred before rotation is commenced. The wafer may be divided into sections such that a number of different chemical patterns ~~patte5rns~~ may be manufactured in a run of only one wafer. For example, a 512-die wafer could be configured to include sixteen addressable section of 32 die each. In principle, the subdivision could be carried as far as desired with every individual die being individually programmable. In this example, when programmed with a parallel data bus, 23 address lines might be employed, 9 for chip address and 14 to address 16,000 sites on each die. In this instance, for fabrication of DNA on the chips, 2^21 or approximately 2 million sites would be turned on for each chemical step. At a 1 MHz clock rate, this should take only two seconds. Other additional features may include provisions for avoiding wafer-scale

disfunctions, relaxed interconnect-metallization rules, decoupling at each "geographical area, self-testing provisions such as write verification, and so forth.

Please amend the **paragraph on page 35, lines 11-14,** as follows:

The second signal may be variously obtained from ~~form~~, for example, an on-chip DAC, or, as shown, from an off-chip source, which optionally may be buffered on the chip. The signal is typically DC, such as, for example, 3 volts; however, any DC or AC signal may be applied.